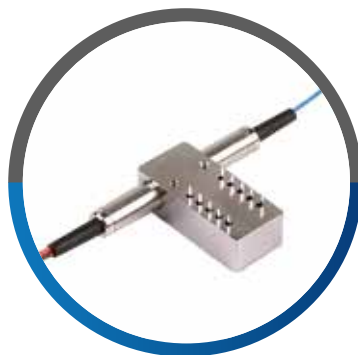
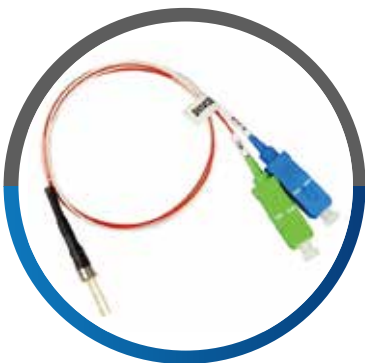




OPTICAL PASSIVE DEVICE



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20 YEARS OF EXPERTISE

Founded in 1998 and based in Huizhou, with branches in Shenzhen and US. XDK is an accredited national high-tech enterprise. We specialize in manufacturing and Creating value to our partners through our solutions and products range.

XDK brings an extensive range of advanced and optical fiber cable solutions to the infrastructure, industry and building markets. Its cables and systems can be found in every area of people's lives, from telecommunications and energy networks, to aeronautics, aerospace, automobiles, railways, buildings, petrochemicals, medical applications, etc .



OPTICAL PASSIVE DEVICE

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1X4 LAN-WDM Module

Features

Low Insertion Loss
High Channel Isolation
High Stability and Reliability
Ultra Compact Size
Epoxy-free on Optical Path

Applications

WDM Network
CFP Transceivers
Data Communication
40G or 100G applications



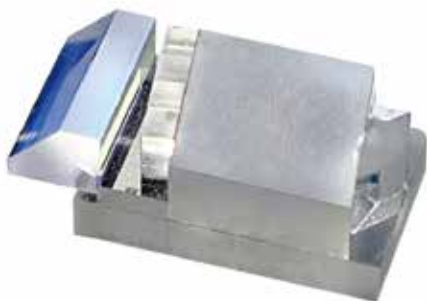
Specifications

Items		Unit	Parameter
Channel Wavelength	CH1	nm	1294.53-1296.59
	CH2		1299.02-1301.09
	CH3		1303.54-1305.63
	CH4		1308.09-1310.19
Wavelength Range		nm	1280-1330
Channel Spacing		GHz	800
Insertion Loss		dB	≤1.4
Isolation	Adjacent	dB	≥25
	Non-Adjacent		≥35
Channel Ripple		dB	≤0.5
Insertion Loss Temperature Sensitivity		dB/°C	≤0.005
Wavelength Temperature Shifting		nm/°C	≤0.002
Polarization Dependent Loss		dB	≤0.3
Polarization Mode Dispersion		ps	≤0.2
Return Loss		dB	≥45
Directivity		dB	≥50
Maximum Power Handling		mw	≤300
Operating Temperature		°C	-10 ~ 80
Storage Temperature		°C	-40 ~ 85
Packing		mm	18.85*10.0*6.5 or 20*8*6

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

LAN WDM Z-Blocker



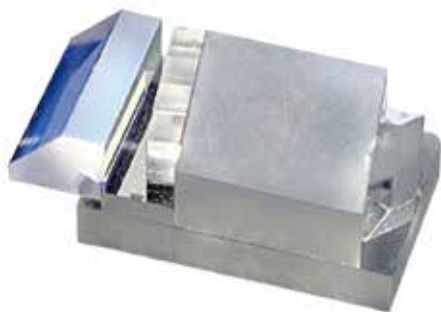
Specifications

Items		Unit	Parameter			
Wavelength Range		nm	1260 ~ 1360			
Channels		/	4			
Center Wavelength		nm	1295.56	1300.05	1304.58	1309.14
Channel Spacing		GHz	800			
Passband		nm	$\geq \lambda_c \pm 1.1$			
Ripple		dB	≤ 0.30			
Insertion Loss		dB	≤ 1.0			
IL Uniformity		dB	≤ 0.6			
Transmission Isolation	Adjacent Channel	dB	≥ 30			
	Non-Adjacent Channel	dB	≥ 45			
Polarization Dependent Loss		dB	≤ 0.25			
Light Spot Pitch		um	750 $\pm$ 50			
Effective Aperture		mm*mm	0.55*0.55			
Parallel Misalignment For All Of 4CHs		°	± 0.15			
CW Temperature Sensitivity		pm/C	3			
A.O.I		°	8 $\pm$ 0.2			
Operation Temperature		°C	-5 ~ 70			
Storage Temperature		°C	-40 ~ 85			
Dimensions		mm	L < 6, W < 4, H=1.0			

Notes:

Customized service is available.

CWDM Z-Blocker



Specifications

Items		Unit	Parameter			
Channels		nm	1260 ~ 1360			
Center Wavelength		/	1271	1291	1311	1331
Channel Spacing		nm	20			
Pass Band		GHz	$\geq \lambda_c \pm 6.5$			
Ripple @ Pass Band		nm	≤ 0.40			
Insertion Loss		dB	≤ 1.0			
IL Uniformity		dB	≤ 0.6			
Transmission Isolation	Adjacent Channel	dB	≥ 25			
	Non-Adjacent Channel	dB	≥ 35			
Polarization Dependent Loss		dB	≤ 0.25			
Light Spot Pitch		um	750 $\pm$ 50			
Effective Aperture		mm*mm	0.55*0.55			
Parallel misalignment for all of 4CHs		°	± 0.15			
A.O.I		°	8 $\pm$ 0.2			
Operation Temperature		°C	-5 ~ 70			
Storage Temperature		°C	-40 ~ 85			
Dimensions		mm	L<6,W<4,H=1.0			

Notes:

Customized service is available.

WDM-PD

Features

Low Insertion Loss
Low Polarization Dependent Loss
High Channel Isolation
Excellent Environmental Reliability

Applications

Access Networks
Metro WDM Systems
Enterprise Networks
Fiber Optic Instruments



Specifications

Items		Unit	Parameter
Pass Channel Wavelength Range		nm	1310±50
Reflect Channel Wavelength Range		nm	1490±10
		nm	1550+11/-15
Responsivity		A/W	≥0.85
Insertion Loss	Pass Channel	dB	≤0.8
	Reflect Channel		≤0.7
Isolation	Pass Channel	dB	≥30
	Reflect Channel		≥17
Polarization Dependent Loss	Pass Channel	dB	≤0.1
	Reflect Channel		≤0.1
Return Loss		dB	≥45
Directivity		dB	≥50
Operating Temperature		°C	-20 ~ 70
Storage Temperature		°C	-40 ~ 85

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

PWDM

Features

Low IL and High Channel Isolation
Wide Wavelength Range
Flat Wavelength Response
Low Dark Current
High Temperature Stability

Applications

CATV System
WDM Channel Monitoring WDM
FTTX System
Channel Monitoring
Optical Line Protection



Specifications

Items		Unit	Parameter
Operating Wavelength		nm	1310 , 1490 , 1550
Operating Bandwidth		nm	1310±40 , 1490±40 , 1550±40 or customized
Pass/Reflection Wavelength		nm	Customized
PD Responsibility		A/mW	≥0.85
Dark Current		nA	≤1.0
Insertion Loss	Pass Band	dB	≤0.8
	Reflection Band		≤0.6
Isolation	Pass Band	dB	≥30
	Reflection Band		≥15
Polarization Dependent Loss	Pass Band	dB	≤0.1
	Reflection Band		≤0.1
Return Loss		dB	≥50
Directivity		dB	≥55
Maximum Power Handling		mW	≤500
Operating Temperature		°C	-20 ~ 70
Storage Temperature		°C	-40 ~ 85
Package Size		mm	φ3.5*L26 , φ5.5*L26 or customized

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

CWDM Device

Features

Low Insertion Loss
Low PDL
High Channel Isolation
Great Reliability and Stability
Wide Operating Wavelength
Wide Operating Temperature



Specifications

Items		Unit	Parameter	
Channel Spacing		nm	20	
Wavelength Range		nm	1460 ~ 1620	1260 ~ 1620
Channel Centers(ITU or ITU+1)		nm	1470...1610	1270...1610
			1471...1611	1271...1611
Pass Band		nm	±6.5	
Pass Band Ripple		dB	≤0.30	
Transmission IL		dB	≤0.60	
Reflection IL		dB	≤0.40	
Reflection Band Ripple		dB	≤0.20	
Transmission Isolation	Adjacent Channel	dB	≥30	
	Non-Adjacent Channel	dB	≥40	
Reflection Isolation		dB	≥13	
Polarization Dependent Loss		dB	≤0.05	
Thermal Stability		dB/°C	≤0.005	
Directivity		dB	≥50	
Return Loss		dB	≥45	
Maximum Optical Power		mw	≤500	
Operating Temperature		°C	-5 ~ 70	
Storage Temperature		°C	-40 ~ 85	
Fiber Type			G657A or Customized	
Package Dimension		mm	Φ5.5×34(A)/ 250um bare fiber	
		mm	Φ5.5×39(B)/900um loose tube	

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

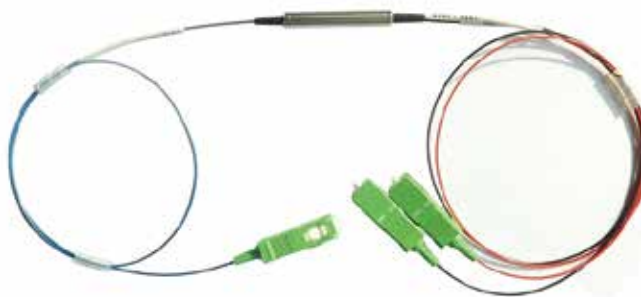
100G DWDM Device

Features

Low Insertion Loss
 Low PDL
 High Channel Isolation
 Great Reliability and Stability
 Wide Operating Wavelength
 Wide Operating Temperature

Applications

Access Networks
 Metro WDM Systems
 Long Haul WDM Systems
 Enterprise Networks



Specifications

Items		Unit	Parameter
Channel Spacing		GHz	100
Wavelength Range			C-or L-band ITU channels 186.6 to 196.1 THz
Pass Band		GHz	$\geq \pm 12.5$
Pass Band Ripple		dB	≤ 0.40
Transmission IL		dB	≤ 1.10
Reflection IL		dB	≤ 0.40
Reflection Band Ripple		dB	≤ 0.20
Transmission Isolation	Adjacent Channel	dB	≥ 30
	Non-Adjacent Channel	dB	≥ 50
Reflection Isolation		dB	≥ 12
Polarization Dependent loss		dB	≤ 0.20
Thermal Stability		dB/°C	≤ 0.005
Directivity		dB	≥ 50
Return Loss		dB	≥ 45
Maximum Optical Power		mw	≤ 500
Operating Temperature		°C	-5 ~ 70
Storage Temperature		°C	-40 ~ 85
Fiber Type			G657A or Customized
Package Dimension		mm	$\Phi 5.5 \times 34(A)$ / 250um bare fiber
		mm	$\Phi 5.5 \times 39(B)$ /900um loose tube

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

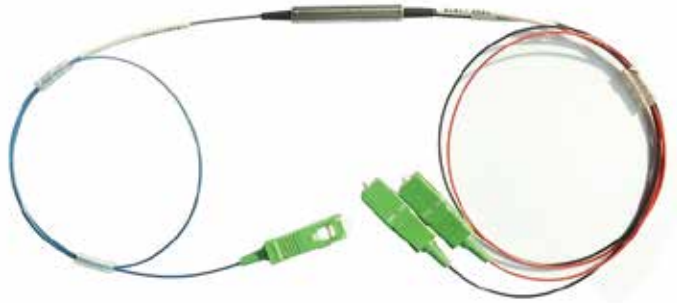
200GHz DWDM Device

Features

Low Insertion Loss
Low PDL
High Channel Isolation
Great Reliability and Stability
Wide Operating Wavelength
Wide Operating Temperature

Applications

Access Networks
Metro WDM Systems
Long Haul WDM Systems
Enterprise Networks



Specifications

Items		Unit	Parameter
Channel Spacing		GHz	200
Wavelength Range			C-or L-band ITU channels 186.6 to 196.1 THz
Pass Band		GHz	$\geq \pm 33$
Pass Band Ripple		dB	≤ 0.40
Transmission IL		dB	≤ 1.10
Reflection IL		dB	≤ 0.40
Reflection Band Ripple		dB	≤ 0.20
Transmission Isolation	Adjacent Channel	dB	≥ 30
	Non-Adjacent Channel	dB	≥ 50
Reflection Isolation		dB	≥ 12
Polarization Dependent Loss		dB	≤ 0.20
Thermal Stability		dB/°C	≤ 0.005
Directivity		dB	≥ 50
Return Loss		dB	≥ 45
Maximum Optical Power		mW	≤ 500
Operating Temperature		°C	-5 ~ 70
Storage Temperature		°C	-40 ~ 85
Fiber Type			G657A or Customized
Package Dimension		mm	$\Phi 5.5 \times 34(A)$ / 250um bare fiber
		mm	$\Phi 5.5 \times 39(B)$ /900um loose tube

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

FWDM Device

Features

Low Insertion Loss
Low PDL
High Channel Isolation
Great Reliability and Stability
Wide Operating Wavelength
Wide Operating Temperature

Applications

Access Networks
Metro WDM Systems
Enterprise Networks
Fiber Optic Equipments



Specifications

Items	Unit	Parameter						
Operating Wavelength	nm	T13/R15	T15/R13	T13/R1415	T14R1315	T15R1314	T1415R13	T1314R15
Transmission Wave Length	nm	1310±40	1550±40	1310±40	1490±10	1550±10	1490±10 1550±10	1310±40 1490±10
Reflection Wavelength	nm	1550±40	1310±40	1490±10 1550±10	1310±40 1550±10	1310±40 1490±10	1310±40	1550±40
Pass Band Ripple	dB	≤0.30						
Transmission IL	dB	≤0.80 (0.60Typ.)						
Reflection IL	dB	≤0.60 (0.40Typ.)						
Reflection Ripple	dB	≤0.20						
Transmission Isolation	dB	≥30						
Reflection Isolation	dB	≥15						
PDL	dB	≤0.05						
Directivity	dB	≥50						
Return Loss	dB	≥45						
Operating Temperature	°C	-5 to +70						
Storage Temperature	°C	-40 to +85						
Fiber Type		G657A or Customized						
Package Dimension	mm	Φ5.5×34(A)/ 250um bare fiber						
	mm	Φ5.5×39(B)/900um loose tube						

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

Features

Low Insertion Loss
Low PDL
High Channel Isolation
Great Reliability and Stability
Wide Operating Wavelength
Wide Operating Temperature

Applications

Access Networks
Metro WDM Systems
Enterprise Networks
Fiber Optic Equipments



Specifications

Items	Unit	Parameter						
Operating Wavelength	nm	T13/R15	T15/R13	T13/R1415	T14R1315	T15R1314	T1415R13	T1314R15
Transmission Length	nm	1310±40	1550±40	1310±40	1490±10	1550±10	1490±10 1550±10	1310±40 1490±10
Reflection Wavelength	nm	1550±40	1310±40	1490±10 1550±10	1310±40 1550±10	1310±40 1490±10	1310±40	1550±40
Pass Band Ripple	dB	≤0.30						
Transmission IL	dB	≤0.80 (0.60 Typ.)						
Reflection IL	dB	≤0.60 (0.40 Typ.)						
Reflection Ripple	dB	≤0.20						
Transmission Isolation	dB	≥30						
Reflection Isolation	dB	≥15						
PDL	dB	≤0.05						
Directivity	dB	≥50						
Return Loss	dB	≥45						
Operating Temperature	°C	-5 to +70						
Storage Temperature	°C	-40 to +85						
Package Dimension	mm	90*20*10						

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

CWDM Module

Features

Low Insertion Loss
 Low PDL
 High Channel Isolation
 Great Reliability and Stability
 Wide Operating Wavelength
 Wide Operating Temperature

Applications

Access Networks
 Metro WDM Systems
 Enterprise Networks



Specifications

Parameter		Unit	1x2	1x4	1x8	1x16
Center Wavelength		nm	ITU, ITU+1			
Pass Band		nm	ITU±6.5			
Operating Wavelength		nm	1460~1620 or 1260~1620			
Channel Space		nm	20			
Fiber Type			G657A or customized			
Insertion Loss		dB	≤1.0	≤1.7	≤2.5	≤3.5
Isolation	Adjacent Channel	dB	≥30			
	Non-Adjacent Channel		≥40			
Ripple		dB	≤0.3	≤0.4	≤0.5	≤0.5
PDL		dB	≤0.2			
PMD		ps	≤0.1			
RL		dB	≥45			
Directivity		dB	≥50			
Maximum Optical Power		mw	≤500			
Operating Temperature		℃	-5 to +70			
Storage Temperature		℃	-40 to +85			
BOX Package		mm	100x80x10		120x80x18	
LGX Package			1U, 2U			
19” Rack mount Package			1U			

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

100GHz DWDM Module

Features

Low Insertion Loss
 Low PDL
 High Channel Isolation
 Great Reliability and Stability
 Wide Operating Wavelength
 Wide Operating Temperature

Applications

Access Networks
 Metro WDM Systems
 Long Haul WDM Systems
 Enterprise Networks



Specifications

Items		Unit	1X4		1X8		1X16	
			Mux	Demux	Mux	Demux	Mux	Demux
Channel Spacing		GHz	100					
Wavelength Range			C-or L-band ITU channels 186.6 to 196.1 THz					
Pass Band		GHz	≥±12.5GHz					
Pass Band Ripple		dB	≤0.40					
Transmission IL		dB	≤1.8		≤3.0		≤4.5	
Transmission Isolation	Adjacent Channel	dB	N/A	> 30	N/A	> 30	N/A	> 30
	Non-Adjacent Channel	dB	N/A	> 40	N/A	> 40	N/A	> 40
Insertion Loss Temperature Sensitivity		dB/°C	≤0.005					
Wavelength Temperature Shifting		nm/°C	≤0.002					
Polarization Dependent Loss		dB	≤0.1		≤0.1		≤0.15	
Polarization Mode Dispersion		ps	≤0.1					
Directivity		dB	> 50					
Return Loss		dB	> 45					
Maximum Power Handling		mW	≤500					
Operating Temperature		°C	-5±70					
Storage Temperature		°C	-40±85					
ABS Package Dimension		mm	100X80X10				140X115X18	

Notes:

1. All values specified are without connectors
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

200GHz DWDM Module

Features

Low Insertion Loss
 Low PDL
 High Channel Isolation
 Great Reliability and Stability
 Wide Operating Wavelength
 Wide Operating Temperature

Applications

Access Networks
 Metro WDM Systems
 Long Haul Wdm Systems
 Enterprise Networks



Specifications

Items		Unit	1X4		1X8		1X16	
			Mux	Demux	Mux	Demux	Mux	Demux
Channel Spacing		GHz	200					
Wavelength Range			C-or L-band ITU channels 186.6 to 196.1 THz					
Pass Band		GHz	≥±33GHz					
Pass Band Ripple		dB	≤0.40					
Transmission IL		dB	≤1.8		≤3.0		≤4.5	
Transmission Isolation	Adjacent Channel	dB	N/A	> 30	N/A	> 30	N/A	> 30
	Non-Adjacent Channel	dB	N/A	> 40	N/A	> 40	N/A	> 40
IL Temperature Sensitivity		dB/°C	≤0.005					
Wavelength Temperature Shifting		nm/°C	≤0.002					
Polarization Dependent Loss		dB	≤0.1	≤0.1		≤0.15		
Polarization Mode Dispersion			≤0.1					
Directivity		dB	> 50					
Return Loss		dB	> 45					
Maximum Power Handling		mW	≤500					
Operating Temperature		°C	-5 ~ 70					
Storage Temperature		°C	-40 ~ 85					
ABS Package dimension		mm	100X80X10				140X115X18	

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

CCWDM Mux/Demux Moudle

Features

Mini Size
High Reliability
Low Insertion Loss and Better Uniformity
Ultra High Thermal Stability
Epoxy-Free in Optical Path
RoHS Compliant

Applications

CWDM System
CATV System
Network Upgrading



Specifications

Items		Unit	Parameter			
Channel Number			4	8	8+E1	8+E2
Central Wavelength		nm	1270, 1290...1610 or 1271, 1291...1611			
Pass Band	Channel	nm	±6.5			
	Upgrade Port	nm			1310±50	1260~1457
Channel Spacing		nm	20			
Fiber Type			Corning SMF-28 with 900mm loose tube			
Insertion Loss	Channel	dB	≤1.0	≤1.5	≤1.6	≤1.8
	Upgrade Port	dB			≤1.2	≤1.2
Isolation	Adjacent Channel	dB	≥30			
	Non-Adjacent Channel		≥40			
	Upgrade Port		≥15			
Channel Ripple		dB	≤0.3			
Polarization Dependent Loss		dB	≤0.15			
Polarization Mode Dispersion		ps	≤0.1			
Return Loss		dB	≥45			
Directivity		dB	≥50			
Maximum Power Handling		mw	≤500			
Operating Temperature		°C	-5 ~ 70			
Storage Temperature		°C	-40 ~ 85			
Package Dimension		mm	P1:L44*W25*H6.2 P2:L53.8*W28*H8			

Notes:

1. All values specified are without connectors
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

Thermal AWG

Features

Low Insertion Loss
 Low PDL
 Established Silica-on-Silicon
 Low Chromatic Dispersion
 Telcordia GR-1221-CORE Qualified

Applications

DWDM Transmission
 Wavelength Routing
 Optical Add/Drop Multiplexing



Specifications

Items		Unit	Parameter		
			Min.	Typ.	Max.
Channel Number			40		
Channel Spacing		GHz	100		
Center Wavelength		nm	C-band		
Clear Channel Pass Band		nm	±0.1		
Wavelength Stability		nm	±0.05		
-1dB Channel Bandwidth		nm	0.4		
-3dB Channel Bandwidth		nm	0.6		
Insertion Loss		dB		4.5	6.0
Isolation	Adjacent Channel	dB	25		
	Non-Adjacent Channel	dB	30		
Total Channel Isolation		dB	22		
Insertion Loss Uniformity		dB		1.0	1.5
Directivity (Mux Only)		dB	40		
Insertion Loss Ripple		dB			0.5
Optical Return Loss		dB	40		
PDL in Clear Channel Band		dB		0.3	0.5
Polarization Mode Dispersion		ps			0.5
Maximum Optical Power		dBm			23
MUX/DEMUX Input/ Output Monitoring Range		dBm	-35		23
Operating Temperature		°C	-5	25	65
Operating Humidity		%RH	5		95
Storage Temperature		°C	-45		85
Storage Humidity		%RH	5		95
Package Dimension		mm	150*65*16		

Notes:

Customized service is available.

Athermal AWG

Features

Low Insertion Loss
Established Silica-On-Silicon
Low PDL
Low Chromatic Dispersion
Telcordia GR-1221-CORE Qualified

Applications

DWDM Transmission
Wavelength Routing
Optical Add/Drop Multiplexing



Specifications

Items		Unit	Parameter		
			Min.	Typ.	Max.
Numbers of Channel			40		
Channel Spacing		GHz	100		
Center Wavelength		nm	C-band		
Pass Band		nm	±0.1		
Wavelength Stability		nm	±0.05		
-1dB Channel Bandwidth		nm	0.36		
-3dB Channel Bandwidth		nm	0.51		
Insertion Loss		dB		4.5	6.0
Isolation	Adjacent Channel	dB	25		
	Non-Adjacent Channel	dB	30		
Total Channel Isolation		dB	24		
IL Uniformity		dB			1.0
Directivity (Mux only)		dB	40		
IL Ripple		dB			1.0
Optical Return Loss		dB	40		
PDL in Clear Channel Band		dB		0.3	0.5
Polarization Mode Dispersion		dB			0.5
Maximum Optical Power		dBm			23
Input/ Output Monitoring Range		dBm	-35		23
Operating Temperature		°C	-5	25	65
Operating Humidity		%RH	5		95
Storage Temperature		°C	-45		85
Storage Humidity		%RH	5		95
Package Dimension		mm	120*70*10		

Notes:

Customized service is available.

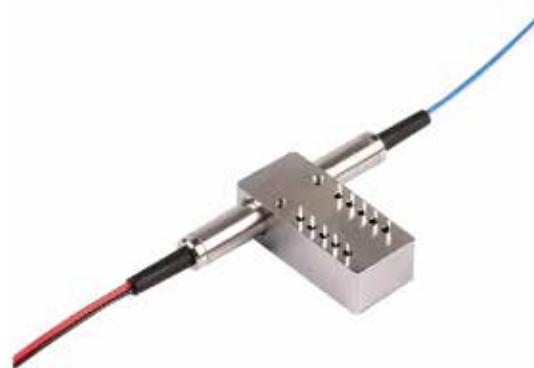
1X2 Mechanical Optical Switch

Features

Low Insertion Loss
Low Cross Talk
Wide Wavelength Rang
High Stability, High Reliability
Unique Patent: Non-Glue in Optical Route

Applications

Ring Network
Metro OADM Systems
Remote Monitoring in Optical Network
Testing of Fiber



Specifications

Items	Unit	Parameter	
Type		1x1, 1x2	
Wavelength	nm	1310 or 1550	1310/1550
Insertion Loss	dB	≤0.5 (Typ. 0.4)	≤0.7 (Typ. 0.5)
Cross Talk	dB	≥55	≥55
Return Loss	dB	≥55	≥55
Repeatability	dB	≤±0.05	
Switch Time	ms	10	
Lifetime	cycle	>1,000,000	
Switch Mode		Latching or Non-latching	
Operating Temperature	°C	-5 ~ 70	
Storage Temperature	°C	-40 ~ 85	
Drive Voltage	V	5 ±0.5 DC or 5V Pulse	
Work Current	mA	< 50	
Fiber length	m	1/1.2/1.5	
Dimension (L*M*H)	mm	(L)26.5×(W)13.4×(H)11	

Electrical Drive

Optical Path	Electrical Drive		Status Sensor					
	Pin1	Pin10	Pin5	Pin6	Pin2-3	Pin3-4	Pin7-8	Pin8-9
1-2	+V Pulse	GND	N/A	N/A	open	close	close	open
1-3	GND	+V Pulse	N/A	N/A	close	open	open	close

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

2X2 Mechanical Optical Switch

Features

Low Insertion Loss
Low Cross Talk
Wide Wavelength Rang
High Stability, High Reliability
Unique Patent: Non-Glue in Optical Route

Applications

Ring Network
Metro OADM Systems
Remote Monitoring in Optical Network
Testing of Fiber



Specifications

Parameter		Value
Type		2*2
Wavelength	nm	1310 /1550
Insertion Loss	dB	0.8/1.0
Cross Talk	dB	≥55
Return Loss	dB	≥55
Repeatability	dB	≤±0.05
Switch Time	ms	10
Lifetime	cycle	>1,000,000
Switch Mode		Latching or Non-latching
Operating Temperature	°C	-5 ~ +70
Storage Temperature	°C	-40 ~ +85
Drive Voltage	V	5 ±0.5 DC or 5V Pulse
Work Current	mA	< 50
Fiber Type		900um
Fiber length	m	0.3
Dimension (LxMxH)	mm	(L)27.0×(W)12.6×(H)8.0(±0.2)

Electrical Drive

Type	Pin	Electric Drive				Status Sensor			
2×2		1	5	6	10	2-3	3-4	7-8	8-9
Latching	P1-P2 P3-P4	--	--	GND	V+	Close	Open	Open	Close
	P1-P4 P3-P2	V+	GND	--	--	Open	Close	Close	Open
Non-latching	P1-P2 P3-P4	--	--	--	--	Close	Open	Open	Close
	P1-P4 P3-P2	V+	--	--	GND	Open	Close	Close	Open

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

Optical Isolator

Features

Low Insertion Loss
High Isolation
Ultra Low PDL&PMD
Epoxy-Free in Optical Path
Great Reliability and Stability
Wide Operating Wavelength
Wide Operating Temperature

Applications

EDFA
WDM&DWDM Systems
Fiber Optic Equipment
Transmitters& Fiber Laser



Specifications

Items	Unit	Single Stage	Dual Stage
Working Center Wavelength	nm	1310/1550 or Other Wavelength	1310/1550 or Other Wavelength
Operating Band Width	nm	±15	±20
Insertion Loss(@-5 ~70°C)	dB	0.40(Typ.) 0.60(Max.)	0.60(Typ.) 0.80(Max.)
Isolation(@23°C)	dB	≥28	≥46
Isolation(@-5~70°C)	dB	≥20	≥40
PMD(PMD Free)	ps	≤0.05	≤0.05
PMD(Standard)	ps	≤0.25	/
Polarization Dependent Loss	dB	≤0.10	≤0.15
Return Loss(Input/output)	dB	≥60/55	≥60/55
Optical Power Handling	nw	≤500	≤500
Operating Temperature Range	°C	-5 to +70	-5 to +70
Storage Temperature Range	°C	-40 to +85	-40 to +85
Fiber Type	N/A	G657A or Customized	G657A or Customized
Package Dimension	mm	Φ5.5×34/250um bare fiber	Φ5.5×34/250um bare fiber

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

OPTICAL CIRCULATOR Device

Features

Low Insertion Loss
Low PDL
High Channel Isolation
Optical Path Epoxy Free
Telcordia Compliant

Applications

Optical Amplifiers
FGB Applications
Dispersion Compensation



Specifications

Items	Unit	Parameter
Center Wavelength & Wavelength Range	nm	1310:1295~1325 1550:1525~1565 1590:1570~1620
Insertion Loss	dB	0.8(Typ.) 1.0(Max)
Return Loss	dB	50
Channel Isolation	dB	40(Typ.) 50 (Max)
Polarization Mode Dispersion	dB	≤0.10
Polarization Dependent Loss	dB	≤0.15
Thermal Stability	dB/°C	≤0.005
Crosstalk	dB	-50
Directivity	dB	≥50
Maximum Optical Power	mw	≤500
Operating Temperature	°C	-5 to +70
Storage Temperature	°C	-40 to +85
Fiber Type	NA	G657A or Customized
Package Dimension	mm	Φ5.5×50
		Φ5.5×68

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.

Mechanical VOA

Features

Low Insertion Loss
Wide Attenuation Range
Wavelength Related Low Loss

Applications

Transmitter Power Equalization
Laboratory Research and Development
High-speed Optical Transmission System
Optical Networking System



Specifications

Parameters	1550nm	1310nm	Width Wavelength
Operation Wavelength (nm)	1550±30	1310±30	1260~1620
Attenuation Range(dB)	0.6~60	0.6~60	1.0~60
Insertion Loss (dB)	≤0.6	≤0.6	≤1.0
RL (dB)	≥60dB		
PDL(dB)	≤0.1 for 0-20dB attenuation ≤0.2 for 20-60dB attenuation		
Max Input (mW)	500		
Operating Temperature (°C)	-5~+70		
Storage Temperature (°C)	-40~+85		

Notes:

Customized service is available.

Free Space Isolator

Features

High Isolation
Low Insertion Loss
Compact Size
Environmental Stable
RoHS Compliant

Applications

Fiber Laser
Tunable Laser
Optical Transmitters



Specifications

Parameter	Unit	Single Stage	Dual Stage
Central Wavelength (λ_C)	nm	1310、 1550 or CWDM Wavelength	
Wavelength Rang	nm	$\lambda_C \pm 0.2$	
Isolation (λ_C , 23 °C)	dB	≥ 35 (Typ. 40)	55 (Typ. 60)
Insertion Loss (λ_C , 23 °C)	dB	≤ 0.3 (Typ. 0.15)	≤ 0.5 (Typ. 0.3)
Operating Temperature	°C	0 ~ 70	
Storage Temperature	°C	-40 ~ 85	

Notes:

Customized service is available.

TOSA ROSA and BOSA Receptacle

Features

High Stability and High Reliability
Precise Dimension
Good Welding Performance
Good Performance in 4 Directions
Optical Power Stability
RoHS Compliant

Applications

PON ONU/OLT
10G Transceiver: LTE
40G Transceiver: 40G LR4/SR4
100G Transceiver: 100G LR4/SR4
CFP/QSFP+/CFP4/QSFP28
Data Center/Cloud Computing



Specifications

Items	Parameter	
Ferrule Type	LC	SC
Ferrule Length	2.5 ~ 7.0mm	2.5 ~ 12mm
APC Angle	0 ~ 12°	
4 Directions	Insertion Loss≤0.2dB	
	Return Loss≥50dB	
Radius of Curvature	7 ~ 25mm	10 ~ 25mm
Shifting of Point	≤50um	
Fiber Depression	0 ~ -100nm	
Pull out Force	1.0 ~ 3.0N	2.0 ~ 6.0N
Break out Force	≥70N	≥100N
Material	SUS304 or SUS303	
Structural Design	Customized	

Notes:

All APC end of Receptacle can be coated film according to the waveband specified by the customer.

TOSA, ROSA and BOSA with Isolator

Features

High Stability And High Reliability
 Precise Dimension
 Good Welding Performance
 Good Performance in 4 Directions
 Optical Power Stability
 RoHS Compliant

Applications

10G Transceiver: LTE
 40G Transceiver: 40G LR4/SR4
 100G Transceiver: 100G LR4/SR4
 CFP/QSFP+/CFP4/QSFP28
 Data Center/Cloud Computing



Specifications

Items		Performance
Insertion Loss		$\leq 0.3\text{dB}$
Return Loss		$\geq 40\text{dB}$
Pull out Force		1.0 ~ 3.0N
Isolation request	Operating Wavelength	1310 $\pm$ 20
	Mini Isolation (1310nm 25°C)	$\geq 40\text{dB}$
	IL (1310nm 25°C)	$\leq 0.2\text{dB}$
	Clear Aperture	$\geq 0.4\text{mm}$
	Operating Temperature	-40°C ~ 85°C

Notes:

Customized service is available.

FA-MT

Features

Small Volume and Easy to Use
High reliability
Stable Work at High Temperature

Applications

40G QSFP SR4 Transceiver
100G QSFP SR Transceiver
40G PSM Transceiver Receiving Array
100G LR Transceiver Receiving Array



Specifications

Parameter	Single-mode	Multi-mode
FA Angle	0° , 8° ,45°	
Insertion Loss	≤1.0dB	≤0.7dB
Return Loss	≥50dB	≥20dB
Length	Typ. 5CM±0.5 or Customized	Typ. 5CM±0.5 or Customized
Connector	FA-MT	FA-MT
End Type	APC,PC	PC
Operating Temperature	-40 °C ~ 70 °C	-40 °C ~ 70 °C
Storage Temperature	-40 °C ~ 85 °C	-40 °C ~ 85 °C

Notes:

Customized service is available.

PLC Splitter

Features

Compact Design
Low Insertion Loss and Low PDL
High Channel Counts
Great Reliability and Stability
Wide Operating Wavelength
Wide Operating Temperature
Customized Packaging and Configuration

Applications

FTTX Systems
LAN, WAN and Metro Networks
Analog/Digital Passive Optical Networks
CATV Networks
Other Applications in Fiber Optic Systems



Specifications

Port Configuration	1×4	2×4	1×8	2×8	1×16	2×16	1×32	2×32	1×64
Operating Wavelength (nm)	1260 ~ 1650								
PDL (dB)	≤0.2								
Directivity (dB)	≥55								
Return Loss(dB)	≥55								
Operation Temp. (°C)	-5~+70								
Storage Temp. (°C)	-40~+85								
Fiber Type	G652D or G657A								
Port Configuration	1×4	2×4	1×8	2×8	1×16	2×16	1×32	2×32	1×64
Insertion Loss (dB)	≤7.20	≤7.20	≤10.25	≤10.0	≤13.5	≤14.0	≤16.7	≤17.0	≤21.5
Loss Uniformity(dB)	≤0.6	≤1.2	≤0.8	≤1.2	≤1.0	≤2.0	≤1.3	≤2.5	≤2.5
Ribbon Fiber Packaging Size (L×W×H) (mm)	40×4×4.0	50×4.5×4.0	45×4.5×4.0	50×4.5×4.0	50×4.5×4.0	50×7.0×4.0	50×7.0×4.0	50×7.0×4.0	60×15×4.0
0.9mm Loose Tube Packaging Size(L×W×H) (mm)	60×7.0×4.0	60×7.0×4.0	60×12×4.0	60×12×4.0	60×12×4.0	60×12×4.0	80×20×6.0	80×20×6.0	100×20×6.0

Notes:

1. All values specified are without connectors.
2. IL will increase 0.2dB when add one connector.
3. Customized service is available.



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